

January 30, 1997

Dear Friends:

I hope that you enjoy the 1997 Vibroplex catalog enclosed with this Keyletter. Mitch asked a month or so ago if I would send it along to the subscribers if he paid the additional postage. I agreed to do so and requested that he sign his picture on the first page. This catalog will be a valuable addition to your Vibroplex documentation files, and a few years from now it will be a coveted keepsake. Wouldn't you like to have an original catalog signed by Martin or Albright? Many thanks to Mitch for sending them and taking the trouble to autograph each copy.

John Elwood reported a typo in the Vibroplex production dates in Keyletter #19. Please change the first 1943 serial number to 122,537.

I just received the latest Lindsay Publications catalog. If you have never seen one, you can order it from them at PO Box 538, Bradley, IL 60915-0538. At times I think that I tithe to this outfit, so be careful! They reprint strange old books, and the latest catalog has some that are stranger and older than most. Among other things, it covers "Monzert's 1889 Practical Distiller", "Coal Powered Auto", "The Physics of UFO Flight", Tesla Coils, Perpetual Motion Mechanisms, and many reprints of early radio manuals.

Another source of machine tools is the Enco Manufacturing Company. You can order a catalog by calling (800)860-3400.

A source of precision tools and equipment is the Rio Grande Tools and equipment company. Their telephone number is (800)545-6566 [USA] and (800)253-9738 [Canada]. They are a jewelers supply house and have an incredible variety of small tools, plating equipment, polishing equipment, etc. If you call them specify that you want their "Tools and Equipment" catalog. They have two other catalogs, but they cover jewelry display cases and "gems and findings".

I visited Neal McEwen in December, and he provided me with a complete transcription of a taped interview with Mr. Noye H. Nesbit made by his son in law, George T. Reed. This interview is referenced in Bill Holly's book The Vibroplex. I called Mr. Reed, and he gave me permission to print this interview in its entirety. The dates that Mr. Nesbit states for the Norcross bugs are incorrect, but that doesn't diminish an otherwise interesting account. See Holly's and French's books for further information about this era.

ASSEMBLY OF THE ORIGINAL VIBROPLEX TELEGRAPH KEY NORCROSS, GEORGIA
1905-06 Taped interview July 12, 1977, in Norcross, Georgia, with Mr. Noye H. Nesbit by his son-in-law George T. Reed, WA3RAU. Retyped December 15, 1996 with minor additions from original (undated) typewriter copy.

INTRODUCTION

It was not until December 1973, when my father-in-law, Mr. Noye H. Nesbit saw me using a Vibroplex bug that I learned that the manufacture of the first model took place less than a block from his birthplace in Norcross, Georgia. This interview at Mr. Nesbit's home in Norcross, Georgia attests to his keen interest and memory of the first Vibroplex. The Vibroplex, a mechanical instrument used for the sending of high-speed Morse Code, first in telegraphy, then in radio, reigned supreme until the advent of electronic keyers in the early sixties. Most "old-timers" continue to use the Vibroplex with great skill and expression, but sadly, it is a dying art. The "rhythm" of the operator's unique sending (or "fist") could sometimes identify the operator. Not so with computer-generated, "perfect" code. Both technologies have a respectable place in the history of communication.

Reed: Tell me as much as you remember of the Vibroplex.. somewhere around 1905, 1904. You told me it was made by United Electric Company, here in Norcross. Did Horace Martin (Sr.) own United Electric?

Nesbit: Let me preface it by this background. There was an orphan boy, here in Norcross, named Ed Buchanan. There were some people who took care of him. He hung around the (Norcross) depot (Southern Railroad) and listened to that telegraphic "stuff". In those days all the trains were dispatched by telegraph. They had operators for 24 hours; 3 operators for 8 hour shifts. The telegraphic instruments were clicking all the time. They had batteries made of glass which held about a gallon of liquid. In the bottom of the glass jar were copper sheets spread out, and the copper sheets were about 2" wide and 6" long attached to an insulated wire which ran to the top of the jar. They would put blue-stone in the top of the jar. The blue-stone was in a "crows-foot" made out of zinc. It was zinc, molded like, you might say, your fingers spread out. That hooked over the top to the other electric wire. It was a "wet" battery.

Nesbit: By the time the electricity went from Atlanta up here, (Norcross, 20 miles), it had lost it's power. They had those relays, which triggered the wet battery, here in Norcross which sent current on to Gainesville. It was DC voltage, of course, maybe 6 volts. Nobody ever got hurt playing with it.

Reed: What was the distance in miles would you say?

Nesbit: It's 20 miles from Atlanta to here (Norcross) and about 30 miles from here to Gainesville. They probably did the same thing in Gainesville. You could hear those relays and the operator had to be sure that even though it might not be his message, he had to keep up those batteries for the messages on into New York. There were 20 to 30 lines, open-wire up on the telegraph poles.

Nesbit: And so the Buchanan boy heard that clicking, got interested in it and Mr. Wahl, who was depot agent at that time...

Reed: This was the Southern Railroad...?

Nesbit: Yes, the Southern Railroad, in Norcross... and so Mr. Wahl took Ed Buchanan in there and trained him in the Morse code. Buchanan then went to New York and worked in the telegraph section of the A.O. Brown stock brokerage firm, and made lots of money on the stock market. He was interested in Norcross so he built a factory here to make plow shares and plow planters to sell to the farmers. It was called Buchanan Plow and Implement Company.

Nesbit: He was also interested in assembling automobiles and it is right interesting that the name of the automobile he assembled was called the "Nor", named after the town of Norcross. On the front of the car was "Nor" and the Latin Cross. I don't think they ever assembled more than three of the "Nors" because they were away ahead of it's day. Buchanan also had this place United Electric Company which he built for Mr. Horace G. Martin, (Sr.) whom he had met at A.O. Brown and Co., presumably. Mr. Martin came down here from New York and started making the Vibroplex. He had already invented the Vibroplex before he came here but they built it in this (United Electric) building. My brother, Verne, worked at United Electric winding coils for the clickers. I do not know that he personally worked on the Vibroplex.

Nesbit: Now you (Reed) have what I call a rather...

Reed: It is called the "Presentation" model.

Nesbit: Well, yours is plated with nickel or something. All of those that were made in that plant (United Electric) were larger than that. They were about one-third larger, maybe a fourth larger and they were just dull brass. There was no plating then you know. They (Martin and Buchanan?) were trying to sell the Vibroplex to those operators, you know. I used to go to the depot and watch those operators use the Vibroplex... you see they also had the old Morse Key. The telegraph company had the Morse keys and when the operators got to be experts, they'd buy themselves a "bug". That's what they called it.

Reed: Why did they call it a bug?

Nesbit: I don't know except it operated so fast or something. The secret of it was that the Morse key operates up and down, vertically, and the Vibroplex operates horizontally, and then, on the back of the Vibroplex, I noticed there was a weight there and I watched those operators push that weight in and out on that bar. If he was a very fast operator, he would push it in so that the thing would run fast and some of them were really experts on it. The experts used that Vibroplex. That's my connection with it. Now, Mr. Martin left here, I don't know where (to) about three or four years later. I knew his

son (Horace G. Martin, Jr.) well and I used to watch them make those Vibroplex's.

Reed: Mr. Nesbit, do you know what year that was? Was it 1905, 1906?

Nesbit: Well, of course I was a little fellow but I got to place it about that time because it was before I went to work. I went to work myself at the telephone company, here (in Norcross) in 1910. So it was years before that.

Reed: I think you told me earlier that it was 1905.

Nesbit: That's about right.

Reed: Now, you said they would send a "blue-streak"... now what does the "blue-streak" mean? Do you recall?

Nesbit: No, it was just that the man could do that. He was an expert telegrapher.

Reed: Do you think there was a spark over the contacts on the Vibroplex, perhaps?

Nesbit: I've seen them operate a whole lot but I didn't notice that part of it. Of course, I was...

Reed: Do you suppose that (spark on Vibroplex' contacts) would be where they thought the blue-streak came from?

Nesbit: Maybe it did. That thing (Vibroplex) was shaking so fast that it just formed a blue-streak on his electrical contacts back there...

Reed: Does the name "Auto-plex" ring any memory?

Nesbit: No, because that must have been something after Mr. Martin left Norcross, because it was the Vibroplex he built here and I saw it assembled here.

Reed: Here's a letter... read this letter from Ms. Moreau here... she has the largest collection of code keys in the world. She has a collection of old Vibroplex keys probably some of those that you saw being worked on and assembled.

Nesbit: Yes.

Reed: Now... I wrote her and sent her a lot of information you had given me. Now she wrote me a very nice letter back and if you want to read her letter you may see something that rings a bell or something... just read her letter...

Nesbit: ...get my glasses...

Reed: While Mr. Nesbit is getting his glasses, I would like to record that Mr. Nesbit is now 82 years old and had given me data on the Vibroplex three or four years ago which I recorded in writing and he very clearly remembers these details...

Nesbit: (In distance) I need a pair of glasses that has a bell on them so that when you... start looking for them they start ringing... I can't find them half the time...

Nesbit: I'll take you down here (on Thrasher Street) and let you make a picture of this place where that plant (United Electric) was because now, of course, there is nothing but weeds and everything growing up there but I can show you where the plant was.

Reed: Now, you said Mr. (Ed) Buchanan owned it?

Nesbit: Well, he was the man who furnished the money. He (Buchanan) came down here on a Pullman at times and...

Reed: He was the philanthropist...?

Nesbit: Yes... and put it (the Pullman) on the side track down there (across from Mr. Nesbit's house) and would run a wire down into it and I said "what on earth is that wire running down there?" Of course, he was keeping up with the (New York) stock exchange. Buchanan interested Horace G. Martin (Sr.) to come here and financed him.

Reed: I see... alright read Ms. Moreau's letter here and it may refresh your memory...

Nesbit: Now those things (Vibroplex), he'd assembled here. He didn't make 'em (parts) here, because that brass came in here already made. Martin didn't have any brass shop here. That brass part was done somewhere else.

Reed: For the frame of the Vibroplex...

Nesbit: Well, there was lots of little brass parts on it. Let me put it this way: they were not made here (the parts) in Norcross... they were only assembled here. Martin either got the parts from New York or Atlanta maybe as they did not have any foundry down here, nor any machine shop. This was just an assembly plant. Now, they did have those little machines that rolled the coils. The Vibroplex parts came here in little boxes and the wire for the coils came in rolls.

Reed: You see Ms. Moreau has a model of every Vibroplex made.

Nesbit: Yes... I wondered whatever became of his son.

Reed: Horace G. Martin's son?

Nesbit: Yes, Horace Martin, Jr.

Reed: That was the one you were in school with?

Nesbit: Yes.

Reed: Just continue reading her letter...

Nesbit: My brother, Verne, has been dead... see he knew all about it, how they assembled the Vibroplex.

Reed: Just continue reading her letter.

Nesbit: We can go down there and you can make a picture of it (United Electric location). You can tell where it was. It was a big two-story building, upstairs and downstairs to it.

Reed: Well, what street was it on?

Nesbit: It was on this (Thrasher) street, which parallels the railroad (Southern Railroad). It was on the other side of Hunter Street, which crosses Thrasher. I think I can find it.

Reed: If we do some research and ever find out where Horace G. Martin, Jr. is we will let you know. How long do you think the Horace G. Martin family lived in Norcross?

Nesbit: Junior was the only child they had. The mother was here... probably a couple of years then they moved back to New York. He was not from here originally. Buchanan was from here and was the philanthropist. That's why Martin came to Norcross. Martin wanted a place and Buchanan probably said, "I'll give you a place". That's why he came here to build the Vibroplex and he had already invented it.

Reed: Alright, that little bit of history is important because I think Ms. Moreau, here, indicated she had never really understood why Horace Martin came to Norcross.

Nesbit: I don't know whether Buchanan furnished him any money or not but I just know that Ed Buchanan built this building down here and set him (Martin) up in it.

Nesbit: Of course, Ed Buchanan went bankrupt just like, ah, I guess that was along about... let's see... I left here in 1910... you can look over there in the (Norcross) cemetery and see when he was buried. See, he went bankrupt in New York, came back to Atlanta, even went back to the first job that he had when he had job with Western Union, in Atlanta. He went back to that first job and he walked the street of Atlanta hunting a job. Had a heart attack and died. The people of Norcross provided a casket for him and buried him... the Methodist church over here... you'll see it... dates on his tombstone there... I think it was his Sunday School class.

Nesbit: Talking about his Sunday School class reminds me of what Carl Garner said. One day they took up collection and Ed Buchanan put in a half-dollar. The rest of the fellows put in a nickel. The treasurer of the class kept that half-dollar for a month showing it around.

Reed: Do you recall anything about Mr. Martin (Sr's) life? Was he active in the church or anything like that?

Nesbit: No, I don't remember anything like that. I was a child in school... of course... I was in school with his son. Now, what his father did, I wouldn't know much about it if my brother hadn't worked with him.

Reed: I see. Uncle Verne (Nesbit).

Nesbit: 'Cause when Vernon was working down there (United Electric), with Mr. Martin, this thing (Vibroplex) I saw... I used to go to the depot and see those men using it and that's why I got interested in the Vibroplex, 'cause it was made here and I had a brother making it and it was a wonderful piece of little machinery. And of course telegraphy was the thing in those days.

Reed: For the purposes of this record, Mr. N.H. Nesbit, with whom I am talking, is my father-in-law.

Reed: Your street address is 258 Thrasher isn't it?

Nesbit: Yes. This street is the street on which United Electric was built and it was on this very street that the Vibroplex was first assembled. It didn't have any street name then, however.

Reed: Well, thank you, Mr. Nesbit. We appreciate it very much.

Post-script: The above has been copied from the original, typewriter version, probably typed in 1977. In 1988, Mr. Nesbit, a 1917 graduate of Georgia Tech, and football player under Johnny Heissman, left the world a better place, and himself, has gone to a better world.

Well, on to the letters. I put out a query over the internet about paint stripping. I had heard that a 50/50 mixture of acetone and xylene was very good. I have some old instruments that are scratched and look pretty bad because moisture has gotten under the lacquer. I received the following replies:

Joe Jacobs: Lynn - I feel silly mentioning it but have you tried nail polish remover?

Randy Cole: You're right. That old lacquer they used on brass is about the toughest stuff I've ever seen. Maybe the Army could use it for tank armor. In a OTB article Roger Reinke said he used

"instrument lacquer remover" followed by 0000 steel wool to remove the stuff. The trick is finding the "instrument lacquer remover", whatever that is. Roger didn't say where to get it.

Both acetone and xylene are pretty harsh. Don't get either one anywhere near plastic or modern paint. I believe that xylene has been found to be carcinogenic so don't breathe the stuff if you can help it. There's a product called "Goof Off" available in stores that is mostly xylene, if I remember right. It is pretty nasty.

I've seen one other 73 bug like the one that Dave Pennes saw in the Ford Museum. I saw one a couple of years ago. I offered a good price for it, but was not able to buy it. It was basically a very small bug with a conventional configuration. It was a good-looking, well-made bug.

Dave Pennes: I have a surplus of 8-32 knurled binding post nuts. Anybody needing any can have them at my cost of \$.32 each plus a padded SASE or send a dollar and I'll mail them in my own envelope. They are nickel plated over brass with medium pitch vertical knurling. It is slightly different from the diamond knurling of early bugs, but close enough.

Howcum, after 14 years of bug collecting, I just got my first grey based Vibroplex Lightning Bug? Ditto for a black wrinkle Blue Racer with the hinged damper. Am I just the last kid on my block to get these, or are they rare items?

Straight keys, particularly from the landline era frequently had markings on them identifying the user. The ubiquitous "W.U.T. CO." is found on many landline keys as well as other equipment of the era including sounders and relays. The following are user markings found on my straight keys:

- AM.TEL.CO. American Telegraph Company. This was on a Phelps camelback leg key. American Telegraph Co. was merged into WUT Co around 1869.
- D. & H.C. Co. Delaware and Hudson Canal Co., on a JHB leg key. Also "PENN" on same key This could be the identifying mark of a Pennsylvania office of the barge company.
- G.N.RY.CO
GNRR CO Great Northern Railroad. I have been told that the "RY" (railroad) designation is earlier than RR. Found on JHB leg keys.
- S. & N. Seattle and Northern Railroad. This marking was obliterated and later GNRy was marked elsewhere on the key. According to Roger Reinke, S & N merged into GNRy.
- C & O RR Chesapeake and Ohio Railroad. "W.U.TEL.Co." on the same JHB leg key.

POSTAL TEL Found on a JHB leg key.
CO.

B&O RR Baltimore and Ohio RR. Found on a JHB leg key.

B.M.P. Co. Brooklyn Metal Products. According to Roger Reinke, this stands for the manufacturer rather than the user. These might be the same folks who made the odd "Brooklyn Metal Stamping Co." Speed-bug during WW II.

NP Northern Pacific RR. Found on a JHB legless key.

NPRY Northern Pacific Railway. This was found on the underside of a JHB legless key. All other markings were on the top of the base.

C.B. & Q. Chicago Burlington and Quincy RR. I found this on JHB leg and legless keys. Both were cadmium plated.

USSC On a generic unidentified J-30 as is found on J-38s.

Murray Willer: I have shipped the Wilson Bug. It is in excellent condition, and I will know that you will like it. [I traded Murray a set of Signal Corps signal flags for it - Lynn] The RCAF realized that they would have to train a lot of operators who were not exactly high speed operators, so they designed a bug that could be operated at very slow speeds. The Wilson bug is also unique in that it can be mounted upside down on its three mounting points and can be used as a left hand bug.

Like most "T-top" bugs this one can be laid on its side and used as a straight key. There are threaded holes on both top bars, so I assume that a set of rubber feet could be attached to them for inverted use. The damper post is extra long and also has a threaded hole in it to complete the base.

Fons Vanden Berghen: As I already have a Marconi Magnetic Detector I was very excited about a year ago when I found the wreck of a Marconi Multiple Tuner in a garage in the Netherlands. It was heavily damaged and incomplete. After a lot of effort I found the most important missing item in England: the aerial tuning condenser, so the restoration work could start. It was done by a French friend of mine, a collector in Paris. To complete this restoration I need the tapped aerial inductor, the two variometers, and the RF choke. Perhaps one of your readers has an idea where they can be found.

Neal McEwen: In conversation with Simon Buxton, a collector from down under, I learned a little about the mysterious Levinson bug and the Buzza Products bugs that we see from time to time, plus two others that I had never heard of. Australian manufacturers were Levinson radio of Sydney who made keys in the 1930 - 1940 period,

Buzza Products, also of Sydney who supplied to the Postmasters dept about the same time. They had 2 models of bugs. Thomas of Adelaide and Leo Cohen of Melbourne were other local manufacturers."

Tony Smith: About Australian keys and key makers, we have had various references to them in MM over the last ten years. The following are the ones I have found after a quick search. If any more come to light I'll come back with the info later.

In my survey of the Key WT 8 Amp, the following info was received:

CLIPSAL. Clipsal keys were made by Gerard Industries of Adelaide, South Australia, a family owned business started in the mid-1930s. During WW2 they made a range of metal and bakelite components for the war effort, including telephone parts, aircraft and bomb switches, and Morse keys. There is no specific information available on that period but the present-day company believes just three people were involved in making the keys, one to operate the compression moulding press for the bakelite base, a metal fabricator, and an assembler. There are no records available of the number made or the period of manufacture. Only two versions of the Key WT 8 Amp made by Clipsal were reported in the MM survey (in Group 1) and these were Keys WT 8 Amp No2 dated 1942 and 1944. The company was still making Morse keys (not WT 8 Amp) in 1960, as evidenced by the Clipsal Contractors' Guide for that year, but it is not known if they continued key manufacture right through from the 1942 era to 1960.

John Elwood has a key made by this company (not a Key WT 8 Amp), marked Ref No. 2/41, which possibly dates it as 1941, in which the name and address of the company is given as: Gerard Electric Mfrs. Ltd., Park Terrace, Bowden, South Australia.

Other Australian makers of the Key WT 8 Amp were reported as follows, but unfortunately no further info has yet appeared on these:

AWA	: Amalgamated Wireless Australia.
EWT	: Contractors to P.M.G. Australia?
LC	: Contractors to P.M.G. Australia?
P.M.G.	: Post-Master General, Australia?

AUSTRALIAN JIGGERS. John Houlder wrote in MM11: "On the Australian land-lines bug-keys were known as "jiggers". In the eastern states, Vic., N.S.W., and Queensland, the most common jigger used in the Post Office was the Simplex Auto. The Simplex Auto produced the "crisp" signal which is favoured in sounder working. It was designed by Leo G. Cohen and manufactured in Melbourne. It was extremely robust and held its adjustments well, although it didn't have the reputation for carrying signals on long physical lines that some other machines had.

The hard contact fitted to the pendulum and the spring contact is the adjusting contact - the reverse principle to that of all other

machines I have seen. Its popularity was due to (a) its robustness and (b) its ease of use, being single-paddle as opposed to the other machines around, which were all double-paddle. Simplex (or Cohen) also made another machine which had automatic dashes as well. This was considered to be an excellent machine, but I think it was only made in limited numbers.

The Pendograph is the pride of my collection, and was manufactured by a man called McDonald, in Adelaide, at the turn of the century or a little later. There were probably no more than about six in use in Sydney in my day, although they were probably more common in their home state, South Australia, and in Western Australia. I believe there was an earlier model with the pendulum pivoted from the top, but I have never seen one. I think very few can have been built and I suspect there are none left today. There are probably only a dozen or so left in Australia of the model I have, and mine is in the best condition of those I have seen in recent years. I believe that the Pendo (as it was affectionately known), was probably the first bug to be built and used in Australia.

The Auto Morse was regarded by most operators as the Rolls Royce of all jiggers and had automatic dashes as well as dots. Like the Pendograph, it was designed in Adelaide and both keys were used by Adelaide operators on long distance circuits such as the overland telegraph line to Darwin. If you look at a map you will appreciate that both Adelaide and Perth had some very long (thousands of miles) of physical circuits. The Auto Morse was used quite extensively in Adelaide and (I believe) in Perth, and was reasonably common in Sydney. It was often used by those who had developed Telegraphist's Cramp; the fact that the machine had automatic dashes made life a lot easier for these chaps.

In the days before the advent of carrier systems both the Pendograph and the Auto Morse had an enviable reputation for the quality of signal they produced and were reputed to have a signal carrying capacity as good as the hand key. Although the Australian telegraphs were under government control, there was no objection to the use of bugs/jiggers. They could either be purchased by the individual or, in later years, they were on issue by the Department. They were used by about 95% of operators. This was my observation in Sydney and Melbourne at least. It was something of a Catch-22 situation. Most of the hand-keys installed were in a worn condition, with pitted and worn contacts, etc, so no-one used them and nobody bothered very much about replacing them - because everyone used jiggers."

Well, that is it for #20. I am still hoping for more information on Vibroplex Upright keys. If you have an Upright or know someone that does please let me know. Keep those cards and letters coming!

73, Lynn, N7CFO

**Lynn A. Burlingame
15621 SE 26TH Street
Bellevue, WA 98008**

**(206)641-5488
e-mail n7cfo@msn.com**

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and the lore of another age.***